

Technical Branch  
Inspection Group  
Electrical Series

**ELECTRICAL INSPECTOR**

02/00 (REB)

*Summary*

Under general supervision, conduct field inspections of construction projects to enforce compliance with municipal, state and national electrical codes and regulations, and adherence to City approved plans, specifications and standards.

*Typical Duties*

Examine new or existing electrical systems of residential, commercial or industrial buildings or facilities, including those having fire, flood or other major damage, prior to, during various phases and at completion of installation, repair or modification to ensure that work and materials conform to prescribed quality and safety standards. Involves: scheduling inspections, and investigating or referring complaints to supervisor as instructed; verifying that contractors are licensed and possess required permits, issuing them as authorized if necessary; reviewing schematics and specifications for acceptability of lay-outs, materials and equipment to be used; visually checking that electrical and electronic components of construction including, but not limited to, wiring, cables, terminals, grounding leads, conduits, insulation, soldering, splicing, connections, lighting fixtures, signage, power equipment, appliances, switches, relays, circuit-breaker panels, or other control or distribution apparatus adequately meet legally mandated technical requirements; observing functioning of installed equipment or systems for indicators of faulty or unsafe operation, and testing circuit continuity and compatibility with instruments such as ohmmeter, battery and buzzer, or oscilloscope; measuring dimensions for placement of components and maintenance accessibility, and calculating factors such as operating demands and number of circuits needed to prevent overloads using established formulas and comparing results to standards references; monitoring on-site conditions and work in progress for suitability of construction trades practices; conferring or corresponding with property owners or contractors and their trades workers to notify them of procedural, materials or equipment code violations or deviations from approved plans as well as informing them of allied property maintenance, grading, zoning or hazards noncompliance, to interpret and explain current and revised building codes or department rules and regulations, and to suggest corrective measures and time limits; taking remedial actions, preparing and issuing citations and work stoppages, and reporting on uncorrected violations for use by administrative or judicial authorities; obtaining evidence of failure to comply such as by sketching location and features of deviations, collecting samples of unapproved materials for laboratory testing and searching inspection records, and testifying in court.

Perform related incidental duties contributing to the realization of unit or team objectives as required. Includes: maintaining awareness of changes in electrical trades technology and codes; substituting for supervisor or coworkers as qualified and within authorized limits by carrying out specified functions to maintain continuity of ordinary operations, if delegated; providing designated support for projects or activities overseen by higher graded non-supervisory personnel as instructed; explaining and demonstrating work performed to assist supervisor in orienting and training less knowledgeable employees; engaging in assignments pertaining to functions of other positions for training purposes under close supervision; logging activities, and preparing and submitting recurring or special status reports; keeping tools, equipment and work area orderly, safe and clean.

*Minimum Qualifications*

Training and Experience: Graduation from high school or General Education Development (GED) equivalent and completion of Journeyman Electrician Training, plus two (2) years journey level experience in various phases of general electrical systems installation or modification; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Good knowledge of: electricity and electrical systems principles; electrical codes and related regulations; methods, materials and techniques of the electrical trade; defects and hazards in lighting and power systems installation and equipment.

Ability to: read and analyze electrical trades technical procedures or governmental regulations, and interpret various instructions in written, oral, diagram, or schedule form; solve practical problems that deal with an assortment of concrete variables in situations where only limited standardization exists to detect defects or hazards related to electrical installation or equipment, or trades work deviations from approved construction plans, and their causes; apply mathematical concepts such as fundamentals of plane and solid geometry and trigonometry together with fractions, percentages, ratios, and proportions to practical situations; express oneself clearly and concisely, both orally and in writing to firmly, tactfully and objectively interpret and enforce building code requirements, and prepare inspection reports or business correspondence and maintain related records; establish

and maintain effective working relationships with fellow employees, contractors, property owners, officials and the general public.

Skill in safe operation and care of: measuring instruments and tools common to electrical trades inspection; motor vehicle.

Physical Effort and Work Environment: Frequent: moving over uneven construction site terrain which includes climbing stairs and ladders; exposure to varying weather conditions. Occasional: driving through city traffic.

Licenses and Certificates: Journeyman or Master Electrician License; International Congress of Building Officials or the Southern Building Code Congress International Electrical Inspector (Level 1) certification within six (6) months of date of appointment; Texas Class "C" Driver's License or equivalent from another state.

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Director of Personnel

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Department Head

OFFICIAL